

WHAT IS CLAIMED IS:

1. An information processing apparatus comprising:

- approval request preparing means for  
5 preparing an approval request;  
storage means for storing an approval service set by an approval service provider;  
decision means for deciding whether or not to approve said prepared approval request, utilizing  
10 said stored approval service; and  
output means for outputting the result of decision of said decision means.

2. An apparatus according to claim 1,  
15 further comprising:

execution means for executing a process corresponding to said approval request in case said outputted result of decision is an approval.

20 3. An apparatus according to claim 1, wherein said approval service includes a decision condition for decision according to the approval requester and the content of said approval request.

25 4. An apparatus according to claim 3, wherein said decision condition further includes information of an information processing apparatus

preparing said approval request.

5. An apparatus according to claim 1,  
wherein said decision means discriminates a period  
5 prohibiting said decision and does not execute the  
approval decision for said approval request in  
case the current time is identified as within a  
prohibition period.

10 6. An approval system comprising a service  
server for managing plural approval services  
registered by an approval service provider and a  
client terminal having approval request preparing  
means for preparing an approval request;

15 wherein said client terminal further  
includes:

acquisition means for searching and acquiring  
an approval service matching said approval request,  
among the plural approval services registered in  
20 said service server;

decision performing means for performing the  
approval decision for said approval request,  
utilizing said acquired approval service; and

25 output means for outputting the result of  
decision of said decision performing means.

7. An approval system according to claim 6,  
wherein said service provider registers said

approval service in said service server in response to the insertion of a card storing information of said approval service and deletes the corresponding approval service from said

5 service server in response to the extraction of said card.

8. An approval system according to claim 6, wherein said client terminal further includes  
10 approval request storage means for storing plural approval request; and

said decision performing means executes the approval decision process for the plural approval requests stored in said approval request storage  
15 means.

9. An approval system according to claim 8, wherein said acquisition means is adapted, upon detecting that said client terminal is connected  
20 to said service server through a network, to search and acquire an approval service matching said approval request among the plural approval services stored in said service server.

25 10. An approval system according to claim 9, wherein said client terminal is a portable terminal.

11. An approval system according to claim 6,  
wherein said acquisition means is adapted, in  
response to the insertion of a card storing said  
approval request into said client terminal, to  
5 search and acquire an approval service matching  
said approval request among the plural approval  
services stored in said service server.

12. An approval system according to claim 6,  
10 wherein said client terminal further includes  
execution means for executing a process  
corresponding to said approval request in case  
said outputted decision result is an approval.

15 13. An approval system according to claim 6,  
wherein said approval service includes a decision  
condition for decision according to the approval  
requester and the content of said approval request.

20 14. An approval system according to claim 6,  
wherein said acquisition means also searches the  
approval service stored in said approval service  
provider.

25 15. A service server comprising:  
approval service storage means for storing  
plural approval services instructed for

registration by an approval service provider; and  
transmission means for searching an approval  
service matching the approval request and  
instructed for search from an external apparatus  
5 and transmitting said approval service to said  
external apparatus.

16. A service server according to claim 15,  
further comprising information means for informing  
10 said external apparatus of an information of  
registration when a new approval service is  
registered by said approval service provider.

17. An approval system comprising a service  
server for managing plural approval services  
registered by an approval service provider, a  
client terminal having approval request preparing  
means for preparing an approval request and a  
request server having approval request storage  
20 means for storing the approval request prepared in  
said client terminal;

wherein said request server includes:  
approval request storage means for storing  
the approval request prepared in said client  
25 terminal;

acquisition means for searching and acquiring  
an approval service matching said approval request

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stored in said approval request storage means,  
among the plural approval services registered in  
said service server;

decision performing means for performing the  
5 approval decision for said approval request,  
utilizing said acquired approval service; and  
output means for outputting the result of  
decision of said decision performing means.

10        18. An approval system according to claim  
17, wherein said acquisition means retains said  
approval request in said approval request storage  
means in case the approval service matching said  
approval request cannot be searched in said  
15 service server, and, upon detecting registration  
of a new approval service in said service server,  
again searches and acquires the approval service  
matching said retained approval request.

20        19. An approval system according to claim  
18, wherein said service server further includes  
information means for informing said request  
server of an information of registration when a  
new approval service is registered by said service  
25 provider.

20. An approval system according to claim

17, wherein an approval service corresponding to  
an approval decider is registered in said service  
server in response to the log-in of said approval  
decider in said service provider, and an approval  
5 service corresponding to said approval decider is  
deleted from said service server in response to  
the log-out of said approval decider from said  
service provider.

10           21. An approval system according to claim  
17, wherein an approval service stored in a card  
storing the approval service is registered in said  
service server in response to the insertion of  
said card in said service provider and the  
15 approval service stored in said card is deleted  
from said service server in response to the  
extraction of said card from said service provider.

20           22. An approval system according to claim  
21, wherein said card includes decision condition  
data to be used in said approval service.

25           23. An approval system according to claim  
22, wherein said service provider prepares said  
approval service and registers it in said service  
server, based on said decision condition data of  
said inserted card.

24. An approval system according to claim  
17, wherein said client terminal further includes  
reception means for receiving the decision result  
outputted by said output means.

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25. An approval system according to claim  
24, wherein said client terminal further includes  
execution means for executing a process  
corresponding to said approval request in case  
10 said received decision result is an approval.

26. An approval system according to claim  
17, wherein said approval service includes a  
decision condition for decision according to the  
15 approval requester and the content of said  
approval request.

27. An approval system according to claim  
17, wherein said acquisition means further  
20 searches the approval service stored in said  
approval service provider.

28. An approval system according to claim  
17, wherein the decision result outputted by said  
25 output means is also outputted to said service  
provider.

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29. An approval system comprising a service server for managing plural approval services registered by an approval service provider and a client terminal having approval request preparing means for preparing an approval request;

wherein said client terminal further includes:

search means for searching an approval service matching said approval request, among the plural approval services registered in said service server;

transmission means, in case said the approval service is searched by said search means, for transmitting said approval request to said service server; and

reception means for receiving the result of approval decision for said approval request transmitted from said service server; and

said service server includes:

decision performing means for performing the approval decision for the approval request transmitted from said client terminal, utilizing said acquired approval service matching said approval request; and

transmission means for transmitting the result of said approval decision to said client terminal.

30. An approval system comprising a service server for managing plural approval services registered by an approval service provider, a client terminal having approval request preparing means for preparing an approval request, and a request server having approval request storage means for storing the approval request prepared in said client terminal;

wherein said request server includes:  
10 approval request storage means for storing the approval request prepared in said client terminal;

search means for searching an approval service matching the approval request stored in  
15 said approval request storage means, among the plural approval services registered in said service server;

transmission means adapted, in case the approval service is searched by said search means,  
20 for transmitting said approval service to said service server; and

reception means for receiving the result of approval decision for said approval request from said service server; and

25 said service server includes:

decision performing means for performing the approval decision for the approval request

transmitted from said request server, utilizing  
the approval service matching said approval  
request; and

transmission means for transmitting the  
5 result of said approval decision to said request  
server.

31. An information processing method  
comprising:

10 an approval request preparing step of  
preparing an approval request;

a storage step of storing an approval service  
set by an approval service provider;

15 approve said prepared approval request, utilizing  
said stored approval service; and

an output step of outputting the result of  
decision of said decision step.

20 32. A method according to claim 31, further  
comprising:

an execution step of executing a process  
corresponding to said approval request in case  
said outputted result of decision is an approval.

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33. A method according to claim 31, wherein  
said approval service includes a decision

condition for decision according to the approval requester and the content of said approval request.

34. A method according to claim 33, wherein  
5 said decision condition further includes information of an information processing method preparing said approval request.

35. A method according to claim 31, wherein  
10 said decision step discriminates a period prohibiting said decision and does not execute the approval decision for said approval request in case the current time is identified as within a prohibition period.

15

36. A control method for an approval system including a service server for managing plural approval services registered by an approval service provider and a client terminal having  
20 approval request preparing means for preparing an approval request, the method comprising, in said client terminal:

an approval request preparing step of preparing an approval request;

25 an acquisition step of searching and acquiring an approval service matching said approval request, among the plural approval

services registered in said service server;

a decision performing step of performing the approval decision for said approval request, utilizing said acquired approval service; and

5 an output step of outputting the result of decision of said decision performing step.

37. A control method for an approval system according to claim 36, wherein said service provider registers said approval service in said service server in response to the insertion of a card storing information of said approval service and deletes the corresponding approval service from said service server in response to the extraction of said card.

15  
38. A control method for an approval system according to claim 36, wherein the method further comprises, in said client terminal an approval request storage step of storing plural approval request in a memory; and

said decision performing step executes the approval decision process for said stored plural approval requests.

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39. A control method for an approval system according to claim 38, wherein said acquisition

step is adapted, upon detecting that said client terminal is connected to said service server through a network, to search and acquire an approval service matching said approval request 5 among the plural approval services stored in said service server.

40. A control method for an approval system according to claim 39, wherein said client 10 terminal is a portable terminal.

41. A control method for an approval system according to claim 36, wherein said acquisition step is adapted, in response to the insertion of a 15 card storing said approval request into said client terminal, to search and acquire an approval service matching said approval request among the plural approval services stored in said service server.

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42. A control method for an approval system according to claim 36, wherein the method further comprises, in said client terminal an execution step of executing a process corresponding to said 25 approval request in case said outputted decision result is an approval.

43. A control method for an approval system according to claim 36, wherein said approval service includes a decision condition for decision according to the approval requester and the  
5 content of said approval request.

44. A control method for an approval system according to claim 36, wherein said acquisition step also searches the approval service stored in  
10 said approval service provider.

45. A control method for a service server comprising:  
an approval service storage step of storing  
15 plural approval services instructed for registration by an approval service provider; and a transmission step of searching an approval service matching the approval request and instructed for search from an external apparatus  
20 and transmitting said approval service to said external apparatus.

46. A control method for a service server according to claim 45, further comprising an  
25 information step of informing said external apparatus of an information of registration when a new approval service is registered by said

approval service provider.

47. A control method for an approval system including a service server for managing plural approval services registered by an approval service provider, a client terminal for preparing an approval request and a request server having a memory for storing the approval request prepared in said client terminal;
- 10 wherein the method comprises, in said request server:
- an approval request storage step of storing the approval request prepared in said client terminal;
- 15 an acquisition step of searching and acquiring an approval service matching said stored approval request, among the plural approval services registered in said service server;
- a decision performing step of performing the approval decision for said approval request, utilizing said acquired approval service; and
- an output step of outputting the result of decision of said decision performing step.
- 25 48. A control method for an approval system according to claim 47, wherein said acquisition step retains said approval request in said memory

in case the approval service matching said  
approval request cannot be searched in said  
service server, and, upon detecting registration  
of a new approval service in said service server,  
5 again searches and acquires the approval service  
matching said retained approval request.

49. A control method for an approval system  
according to claim 48, wherein the method further  
10 comprises, in said service server, an information  
step of informing said request server of an  
information of registration when a new approval  
service is registered by said service provider.

15 50. A control method for an approval system  
according to claim 47, wherein an approval service  
corresponding to an approval decider is registered  
in said service server in response to the log-in  
of said approval decider in said service provider,  
20 and an approval service corresponding to said  
approval decider is deleted from said service  
server in response to the log-out of said approval  
decider from said service provider.

25 51. A control method for an approval system  
according to claim 47, wherein an approval service  
stored in a card storing the approval service is

registered in said service server in response to  
the insertion of said card in said service  
provider and the approval service stored in said  
card is deleted from said service server in

5 response to the extraction of said card from said  
service provider.

52. A control method for an approval system  
according to claim 51, wherein said card includes  
10 decision condition data to be used in said  
approval service.

53. A control method for an approval system  
according to claim 52, wherein said service  
15 provider prepares said approval service and  
registers it in said service server, based on said  
decision condition data of said inserted card.

54. A control method for an approval system  
20 according to claim 47, wherein the method in said  
client terminal further comprises a reception step  
for receiving the decision result outputted by  
said output step.

25 55. A control method for an approval system  
according to claim 54, wherein the method in said  
client terminal further comprises an execution

step of executing a process corresponding to said approval request in case said received decision result is an approval.

5        56. A control method for an approval system  
according to claim 47, wherein said approval  
service includes a decision condition for decision  
according to the approval requester and the  
content of said approval request.

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57. A control method for an approval system according to claim 47, wherein said acquisition step further searches the approval service stored in said approval service provider.

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58. A control method for an approval system according to claim 47, wherein the decision result outputted by said output step is also outputted to said service provider.

20

59. A control method for an approval system including a service server for managing plural approval services registered by an approval service provider and a client terminal for preparing an approval request, the method comprising, in said client terminal:

an approval request preparing step of

preparing an approval request;

a search step of searching an approval service matching said approval request, among the plural approval services registered in said  
5 service server;

a transmission step, in case said the approval service is searched by said search step, for transmitting said approval request to said service server; and

10 a reception step of receiving the result of approval decision for said approval request transmitted from said service server; and

the method comprising in said service server:

a decision performing step of performing the  
15 approval decision for the approval request transmitted from said client terminal, utilizing said approval service matching said approval request; and

a transmission step of transmitting the  
20 result of said approval decision to said client terminal.

60. A control method for an approval system including a service server for managing plural  
25 approval services registered by an approval service provider, a client terminal for preparing an approval request, and a request server having a

memory for storing the approval request prepared in said client terminal;

wherein the method in said request server comprises:

5       an approval request storage step of storing the approval request prepared in said client terminal;

10      a search step of searching an approval service matching the approval request stored in said approval request storage step, among the plural approval services registered in said service server;

15      a transmission step adapted, in case the approval service is searched by said search step, for transmitting said approval service to said service server; and

20      a reception step of receiving the result of approval decision for said approval request from said service server; and

25      the method in said service server comprising:

      a decision performing step of performing the approval decision for the approval request transmitted from said request server, utilizing the approval service matching said approval request; and

      a transmission step of transmitting the result of said approval decision to said request

server.

61. A computer program composed of computer executable codes comprising:

5       an approval request preparing step of preparing an approval request;

          a storage step of storing an approval service set by an approval service provider;

10      a decision step of deciding whether or not to approve said prepared approval request, utilizing said stored approval service; and

          an output step of outputting the result of decision of said decision step.

15      62. A computer executable control program for controlling an approval system including a service server for managing plural approval services registered by an approval service provider and a client terminal having approval 20 request preparing means for preparing an approval request, the method comprising, in said client terminal:

          an approval request preparing step of preparing an approval request;

25      an acquisition step of searching and acquiring an approval service matching said approval request, among the plural approval

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services registered in said service server;

a decision performing step of performing the approval decision for said approval request, utilizing said acquired approval service; and

5 an output step of outputting the result of decision of said decision performing step.

63. A computer executable control program for a service server comprising:

10 an approval service storage step of storing plural approval services instructed for registration by an approval service provider; and

a transmission step of searching an approval service matching the approval request and

15 instructed for search from an external apparatus and transmitting said approval service to said external apparatus.

64. A computer executable control program for an approval system including a service server for managing plural approval services registered by an approval service provider, a client terminal for preparing an approval request and a request server having a memory for storing the approval request prepared in said client terminal;

25 wherein the program comprises, in said request server:

an approval request storage step of storing  
the approval request prepared in said client  
terminal;

an acquisition step of searching and  
5 acquiring an approval service matching said stored  
approval request, among the plural approval  
services registered in said service server;

a decision performing step of performing the  
approval decision for said approval request,  
10 utilizing said acquired approval service; and

an output step of outputting the result of  
decision of said decision performing step.

65. A computer executable control program  
15 for an approval system including a service server  
for managing plural approval services registered  
by an approval service provider and a client  
terminal for preparing an approval request, the  
program comprising, in said client terminal:

20 an approval request preparing step of  
preparing an approval request;

a search step of searching an approval  
service matching said approval request, among the  
plural approval services registered in said  
25 service server;

a transmission step, in case said the  
approval service is searched by said search step,

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for transmitting said approval request to said service server; and

a reception step of receiving the result of approval decision for said approval request

5 transmitted from said service server; and

the program comprising in said service server:

a decision performing step of performing the approval decision for the approval request

10 transmitted from said client terminal, utilizing said approval service matching said approval request; and

a transmission step of transmitting the result of said approval decision to said client 15 terminal.

66. A computer executable control program for an approval system including a service server for managing plural approval services registered by an approval service provider, a client terminal for preparing an approval request, and a request server having a memory for storing the approval request prepared in said client terminal;

wherein the program in said request server 25 comprises:

an approval request storage step of storing the approval request prepared in said client

terminal;

a search step of searching an approval service matching the approval request stored in said approval request storage step, among the 5 plural approval services registered in said service server;

a transmission step adapted, in case the approval service is searched by said search step, for transmitting said approval service to said 10 service server; and

a reception step of receiving the result of approval decision for said approval request from said service server; and

the program in said service server  
15 comprising:

a decision performing step of performing the approval decision for the approval request transmitted from said request server, utilizing the approval service matching said approval 20 request; and

a transmission step of transmitting the result of said approval decision to said request server.